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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,066

06/29/2005

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EXAMINER

MITCHELL, DANIEL D

ART UNIT

PAPER NUMBER

4134

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/541,066	Applicant(s) IKEDA ET AL.	
	Examiner DANIEL MITCHELL	Art Unit 4134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/29/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,372,842 B2 to Kim et al. ("Kim") in view of U.S. PG Publication No. 2003/0185159 A1 to Seo et al ("Seo").

3. As to **claim 1**, Kim discloses a compressed mode outbound propagation path quality information transmitting method comprising:

a receiving step of receiving a radio signal (Kim – column 16, line 44-46);

an extracting step of extracting a control parameter(see column 5, lines 4-22) from said received signal (Kim - column 15, lines 48-60 where transmission gap information is control parameter information);

a timing generating step of calculating a downlink transmission gap interval and uplink transmission gap interval based on the extracted control parameter (Kim - column 15, lines 48-60 where transmission gap information is control parameter information),

and generating timing for transmitting said outbound propagation path quality information when a postulated period for which transmission is assumed of said

Art Unit: 4134

outbound propagation path quality information generated based on said received signal of said measurement reference period not overlapping calculated said downlink transmission gap interval and a postulated period not overlapping said uplink transmission gap interval first match after said downlink transmission gap interval and said uplink transmission gap interval have both ended (column 18, lines 42-45, transmission will not commence until non-transmittable period has ended);

and a transmitting step of transmitting, at said timing generated in said timing generating step, said outbound propagation path quality information generated based on said received signal of said measurement reference period not overlapping said downlink transmission gap interval and after said downlink transmission gap interval has ended (Kim - figure 10 teaches a non-transmittable period that includes a transmission gap, where the transmission gap may be an uplink or a downlink transmission gap and column 18, lines 42-45 teaches where transmission will be delayed until the end of the transmission gap).

Kim does not expressly disclose an outbound propagation path quality information generating step of generating outbound propagation path quality information for each measurement reference period based on a received signal;

Seo discloses a UE that can transmit channel quality information (page 3, paragraph 25)

At the time of invention, it would have been obvious to a person of ordinary skilled in the art to generate channel quality information as taught by

Seo. The suggestion/motivation would have been conserve power by implementing power control based on a channel quality indicator (page 3, paragraph 28).

As to **claim 2**, The compressed mode outbound propagation path quality information transmitting method according to claim 1, wherein, in said timing generating step, said downlink transmission gap interval and said uplink transmission gap interval are calculated based on extracted said control parameter, said measurement reference periods that do not overlap calculated said downlink transmission gap interval are specified sequentially (Kim – column 16, lines 44-52 teaches receiving gap related information which is interpreted as a control parameter),

and said timing is generated when a postulated period for which transmission of said outbound propagation path quality information generated based on said received signal of said measurement reference period specified sequentially and a postulated period not overlapping said uplink transmission gap interval first match(column 18, lines 42-45).

As to **claim 3**, Kim discloses a compressed mode outbound propagation path quality information transmitting method as to the parent claim,

Kim does not expressly disclose wherein a radio signal received in said receiving step is a discontinuously transmitted packet data signal.

Seo discloses a UE (user end that is capable of performing discontinuous transmission (Seo – page 6, paragraph 67).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to perform discontinuous transmission as taught by Seo. The suggestion/motivation would have been conserve power by having the option to only transmit pilot signals when the UE is in a soft handover region (page 3, paragraph 31).

As to **claim 4**, see similar rejection to claim 1.

As to **claim 5**, the outbound propagation path quality information transmitting apparatus according to claim 4, wherein said timing generation section comprises: an uplink status determination section that monitors from beginning to end said uplink transmission gap interval based on extracted said control parameter(see column 5, lines 4-22) (Kim – column 15, lines 49 -60 describes an apparatus that can determine non-transmittable period (transmission gap) based on receiving transmission gap-related information, therefore the complete transmission gap must be monitored), and determines whether it is possible to transmit said outbound propagation path quality information in a postulated period for which transmission of said outbound propagation path quality information is assumed in said uplink (Kim – column 15, lines 56-60 describes an apparatus that will schedule a time for transmission after the non-transmittable period is completed); a downlink status determination section that monitors from beginning to end said downlink transmission gap interval based on extracted said control parameter (Kim – column 15, lines 49-60 describes an apparatus that can determine non-transmittable

period (transmission gap) based on receiving transmission gap-related information, therefore the complete transmission gap must be monitored),

and determines whether said measurement reference period corresponding to a postulated period for which transmission of said outbound propagation path quality information is assumed does not overlap said downlink transmission gap interval (Kim – column 15, lines 56-60 describes an apparatus that will schedule a time for transmission after the non-transmittable period is completed);

and a decision section that makes a decision to generate said timing for transmitting said outbound propagation path quality information when results of determination by said uplink status determination section and determination by said downlink status determination section are both affirmative (Kim - column 15, lines 56-57 where a scheduler will schedule timing for transmission based on the non-transmittable period).

As to **claim 6**, the outbound propagation path quality information transmitting apparatus according to claim 4, wherein said timing generation section comprises: a scheduled period derivation section that derives a scheduled period for which transmission of said outbound propagation path quality information in said compressed mode is scheduled based on extracted said control parameter (Kim – column 15, lines 48-60 discloses a scheduler that determines a non-transmittable period from transmission gap related information and will schedule transmission after this period); an uplink status determination section that monitors from beginning to end said uplink transmission gap interval based on extracted said control parameter, and determines

Art Unit: 4134

whether said uplink transmission gap interval and said scheduled period or said postulated period do not overlap (Kim –column 15, lines 49-60 describes an apparatus that can determine non-transmittable period (transmission gap) based on receiving transmission gap-related information, therefore the complete transmission gap must be monitored);

and a downlink status determination section that monitors from beginning to end said downlink transmission gap interval based on extracted said control parameter, and determines whether said downlink transmission gap interval and said measurement reference period do not overlap (Kim – column 15, lines 49-60 describes an apparatus that can determine non-transmittable period (transmission gap) based on receiving transmission gap-related information, therefore the complete transmission gap must be monitored);

and a decision section that makes a decision to generate said timing for transmitting said outbound propagation path quality information when results of determination by said uplink status determination section and determination by said downlink status determination section are both affirmative (Kim - column 15, lines 56-57 where a scheduler will schedule timing for transmission based on the non-transmittable period).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL MITCHELL whose telephone number is

Art Unit: 4134

(571)270-5307. The examiner can normally be reached on Monday - Friday 8:00 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lao Lun-yi can be reached on 571-272-7671. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. M./
Examiner, Art Unit 4134

/LUN-YI LAO/
Supervisory Patent Examiner, Art Unit 4134